


# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>103784PCT</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. <b>PCT/EP2004/000624</b>	International filing date (day/month/year) <b>26.01.2004</b>	Priority date (day/month/year) <b>24.01.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>A47L9/10, A47L9/12</b>			
Applicant <b>PINESCHI, Massimiliano</b>			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 9 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 3 sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).			
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I      Basis of the opinion <input type="checkbox"/> Box No. II     Priority <input checked="" type="checkbox"/> Box No. III    Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV     Lack of unity of invention <input checked="" type="checkbox"/> Box No. V      Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI     Certain documents cited <input type="checkbox"/> Box No. VII    Certain defects in the international application <input checked="" type="checkbox"/> Box No. VIII   Certain observations on the international application			
Date of submission of the demand  <b>26.01.2005</b>		Date of completion of this report  <b>12.05.2005</b>	
Name and mailing address of the International preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer  <b>Cabral Matos, A</b>  Telephone No. +31 70 340-2668	



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International application No.  
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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-8 as originally filed

**Claims, Numbers**

1-20 filed with the demand

**Drawings, Sheets**

1/4-4/4 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

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1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 15-20

because:

☒ the said international application, or the said claims Nos. 15-20 relate to the following subject matter which does not require an international preliminary examination (specify):

**see separate sheet**

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos.

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☒ See separate sheet for further details

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	6,7,10,11,14
	No: Claims	1-5,8,9,12,13
Inventive step (IS)	Yes: Claims	6,7,10,11,14
	No: Claims	1-5,8,9,12,13
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

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International application No.

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Reference is made to the following documents:

D1: PATENT ABSTRACTS OF JAPAN vol. 0031, no. 26 (M-077), 20 October 1979  
(1979-10-20) -& JP 54 103262 A (TOKYO ELECTRIC CO LTD), 14 August  
1979 (1979-08-14)

D2: PATENT ABSTRACTS OF JAPAN vol. 0030, no. 49 (M-057), 26 April 1979  
(1979-04-26) -& JP 54 028460 A (TOKYO ELECTRIC CO LTD), 3 March 1979  
(1979-03-03)

**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial  
applicability**

At the Applicant's request expressed in the explanatory note filed with the demand (PCT-  
Form 401), preliminary examination is not carried out on claims 15-20, but only on claims 1  
to 14.

**Re Item V.**

**Reasoned statement with regard to novelty, inventive step or industrial  
applicability; citations and explanations supporting such statement**

1 Novelty assessment with respect to D1

1.1 The present application does not meet the criteria of Article 33(1) PCT, because the  
subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses in the wording of claim 1 (the references in parenthesis  
applying to this document):

A vacuum cleaner comprising a collection chamber (30) located along an intended path through which air current and detritus is conveyed, said collection chamber (30) being provided with a collection zone in which said detritus is receivable, wherein said collection chamber (30) is provided with compacting means (22) movable across said collection zone for compacting said detritus.

**1.2 Dependent claims 2-5, 8:**

Dependent claims 2-5,8 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT), the reasons being as follows:

**Claim 2:**

D1 discloses the compacting means (22) comprising a pusher unit (21-24) having a buffer (21) so driven as to compact the detritus in boxed tank means (30).

**Claim 3:**

D1 discloses a vacuum cleaner providing filter chamber means (30) housing filter means (13) for filtering the air current.

**Claim 4:**

D1 discloses the filter chamber means (30) being releasably fitted to enclosure means (1).

**Claim 5:**

D1 discloses the filter chamber means (30) comprising a first filter chamber (11) adjacent to said collection chamber (30) and communicating with said collection chamber (30) through opening means of barrier (14).

**Claim 8:**

Claim 8 is a repetition of claim 2 and is therefore also anticipated by D1.

**2 Novelty assessment with respect to D2**

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT with respect to D2.

Document D2 discloses in the wording claim 1 (the references in parenthesis applying to this document; cf. figures):

A vacuum cleaner comprising a collection chamber (7,11) located along an intended path through which air current and detritus is conveyed, said collection chamber (7,11) being provided with a collection zone in which said detritus is receivable, wherein said collection chamber (7,11) is provided with compacting means (13,14,16) movable across said collection zone for compacting said detritus.

- 2.2 Dependent claims 8,9,12,13:

Dependent claims 9,12,13 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT), the reasons being as follows:

Claim 8:

D2 discloses a vacuum cleaner with compacting means (13,14,16) comprising a pusher unit (13,14,16) having a buffer (13) so driven as to compact the detritus in boxed tank means (7).

Claim 9:

D2 discloses a vacuum cleaner according to claim 8, wherein the boxed tank means (7) is slidably received in a seat (26) of said collection chamber (11) (cf. figure 1).

Claim 12:

D2 discloses a vacuum cleaner according to claim 8, wherein said seat has a substantially cylindrical shape for snugly accommodating said boxed tank means (7) (cf. figures).

Claim 13:

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D2 discloses a vacuum cleaner according to claim 12, wherein said boxed tank (7) and said seat have a common longitudinal axis (cf. figures).



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**Re Item VIII**

**Certain observations on the international application**

- 1 The application does not meet the requirements of Article 6 PCT for the following reasons:
  - 1.1 Claim 5 refers to the feature "said barrier (7). This feature was not introduced before and leaves the reader in doubt as to the meaning it encompasses.
  - 1.2 Claims 2 and 8 have the same wording and seem therefore to be redundant.

## AMENDED CLAIMS UNDER A 34 PCT

1. Vacuum cleaner (1), comprising a collection chamber (4) located along an intended path (10, 4, 11, 14, 114, 19) through which air current and detritus (D) is conveyed, said collection chamber (4) being provided with a collection zone (29) in which said detritus (D) is receivable, characterized in that, said collection chamber (4) is provided with compacting means (8, 26, 30) movable across said collection zone (29) for compacting said detritus (D).
2. Vacuum cleaner (1) according to claim 1, wherein said compacting means (8, 26, 30) comprises a pusher unit (27) having a buffer (30) so driven as to compact said detritus (D) in boxed tank means (23).
3. Vacuum cleaner according to claim 1 or 2, wherein, along said intended path (10, 4, 11, 14, 114, 19), filter chamber means (11; 14; 19) is provided housing filter means (13; 17; 20) for filtering said air current.
4. Vacuum cleaner according to claim 3 characterised in that said filter chamber means (11; 14; 19) is releasably fitted to enclosure means.
5. Vacuum cleaner according to claim 3 or 4, wherein, said filter chamber means (11; 14; 19) comprises a first filter chamber (11) adjacent to said collection chamber (4) and communicating with said collection chamber (4) through opening means (22) of said barrier (7).
6. Vacuum cleaner according to claim 4 or 5, wherein said filter chamber means (11; 14; 19) comprises a second filter chamber (14) adjacent to said first filter chamber (11), and communicating with said first filter chamber (11) through aperture means (12) of common wall means (15).

7. Vacuum cleaner according to claim 4, or 6, wherein said filter chamber means (11; 14; 19) comprises an exit chamber (19) adjacent to said second filter chamber (14), and communicating with said second filter chamber (14) through an housing (50) of a sucking unit (5).
8. Vacuum cleaner according to any preceding claims, wherein said compacting means (8, 26, 30) comprises a pusher unit (27) having a buffer (30) so driven as to compact said detritus (D) in boxed tank means (23).
9. Vacuum cleaner according to claim 8, wherein said boxed tank means (23) is slidably received in a seat (26) of said collection chamber (4).
10. Vacuum cleaner according to claim 9, wherein said boxed tank means (23) is rotatably received in said seat (26) so that said boxed tank means (23) can be rotated between an extracting position, in which a loading opening (24) faces upwards, and a loading position in which said loading opening faces said pusher unit (27).
11. Vacuum cleaner according to claim 10, wherein said buffer (30) is so shaped as to shapingly fit with a slit (32) of said seat (26).
12. Vacuum cleaner according to any of claims 8 to 11, wherein said seat (26) has a substantially cylindrical shape for snugly accommodating said boxed tank means (23).
13. Vacuum cleaner according to claim 12, wherein said boxed tank (23) and said seat (26) have a common longitudinal axis.
14. Vacuum cleaner according to claim 13, wherein said common longitudinal axis is transversely disposed of a longitudinal axis of said buffer (30).
15. Vacuum cleaner, comprising a collection chamber (4) located along an intended path (10, 4, 11, 14, 114, 19) through which air current and detritus (D) is conveyed,

said collection chamber (4) being provided with a collection zone (29) in which said detritus (D) is receivable, characterized in that, said collection chamber (4) is provided with barrier means (7) positioned transversally of a flow direction of said air current and detritus (D).

16. Vacuum cleaner according to claim 15 wherein, along said intended path (10, 4, 11, 14, 114, 19), filter chamber means (11; 14; 19) is provided housing filter means (13; 17; 20) for filtering said air current.

17. Vacuum cleaner according to claim 16 characterised in that said filter chamber means (11; 14; 19) is releasably fitted to enclosure means.

18. Vacuum cleaner according to claim 16 or 17, wherein, said filter chamber means (11; 14; 19) comprises a first filter chamber (11) adjacent to said collection chamber (4) and communicating with said collection chamber (4) through opening means (22) of said barrier (7).

19. Vacuum cleaner according to claim 17 or 18, wherein said filter chamber means (11; 14; 19) comprises a second filter chamber (14) adjacent to said first filter chamber (11), and communicating with said first filter chamber (11) through aperture means (12) of common wall means (15).

20. Vacuum cleaner according to claim 17 or 19, wherein said filter chamber means (11; 14; 19) comprises an exit chamber (19) adjacent to said second filter chamber (14), and communicating with said second filter chamber (14) through an housing (50) of a sucking unit (5).